

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-3 (canceled)

Claim 4 (currently amended): A method of producing reduced iron pellets comprising:

3 pelletizing a mixture of iron oxide powder, a reducing material and a binder into raw material pellets;

reducing the raw material pellets in a rotary bed-type direct reducing furnace to obtain reduced iron pellets; and

rolling the reduced iron pellets in a heat retaining and rolling portion of a rotary cylinder at a temperature ranging between 800 and 1200°C sufficiently such that the reduced iron pellets undergo sintering.

Claim 5 (previously presented) A method of producing reduced iron pellets according to claim 4, wherein said rolling step comprises rolling of the reduced iron pellets for more than 3 minutes and less than 20 minutes.

Claim 6 (withdrawn): A production facility for producing reduced iron pellets comprises:

a reducing furnace for obtaining the reduced iron pellets by heating and reducing the raw material pellets composed of the iron oxide powder and the carbonaceous material powder;

a heat retaining and rolling portion for executing rolling the heated reduced iron pellets after receiving them from the reducing furnace, while retaining the heat of the pellets; and

a cooler for cooling said reduced iron pellets after receiving from the heat retaining and rolling portion.

Claim 7 (withdrawn): A production facility for producing reduced iron pellets according to claim 6, wherein said cooler is a cylindrical cooler and said heat retaining and rolling portion is apart from said cooler.

Claim 8 (withdrawn): A production facility for producing reduced iron pellets according to claim 7, wherein said heat retaining and rolling portion is formed by lining the inside of said cooler by a insulating material.

Claims 9-22 (canceled)

Claim 23 (previously presented): A method of producing reduced iron pellets according to claim 4, wherein the reducing material comprises a carbonaceous material powder.

Claim 24 (currently amended): A method of producing reduced iron pellets according to claim 4, ~~further comprising first cooling the reduced iron pellets at least down to 600°C and then further cooling the reduced iron pellets down to a range between 23 and 100°C.~~ wherein said rotary cylinder comprises the heat retaining and rolling portion, insulated by heat insulating material and a cooling portion provided with water spray nozzles, and the reduced iron pellets discharged from the rotary bed-type direct reducing furnace at a high temperature of 1100 to 1200°C is transferred to the heat retaining and rolling portion of the rotary cylinder and subjected to rolling for sintering.

Claim 25 (previously presented): A method of producing reduced iron pellets according to claim 4, further comprising providing a rotary cylinder having a heat retaining rolling portion positioned to receive the reduced iron pellets from a direct reducing furnace provided with a rotary flat floor for the reducing of the raw material pellets.

ε 1

Claim 26 (previously presented): A method of producing reduced iron pellets according to claim 24, wherein the further cooling of the reduced iron pellets comprising providing a cooling furnace and spraying the reduced iron pellets with water.

Claim 27 (previously presented): A method of producing reduced iron pellets according to claim 26, wherein the cooling furnace comprises a hopper.

E₁
